FIG.1

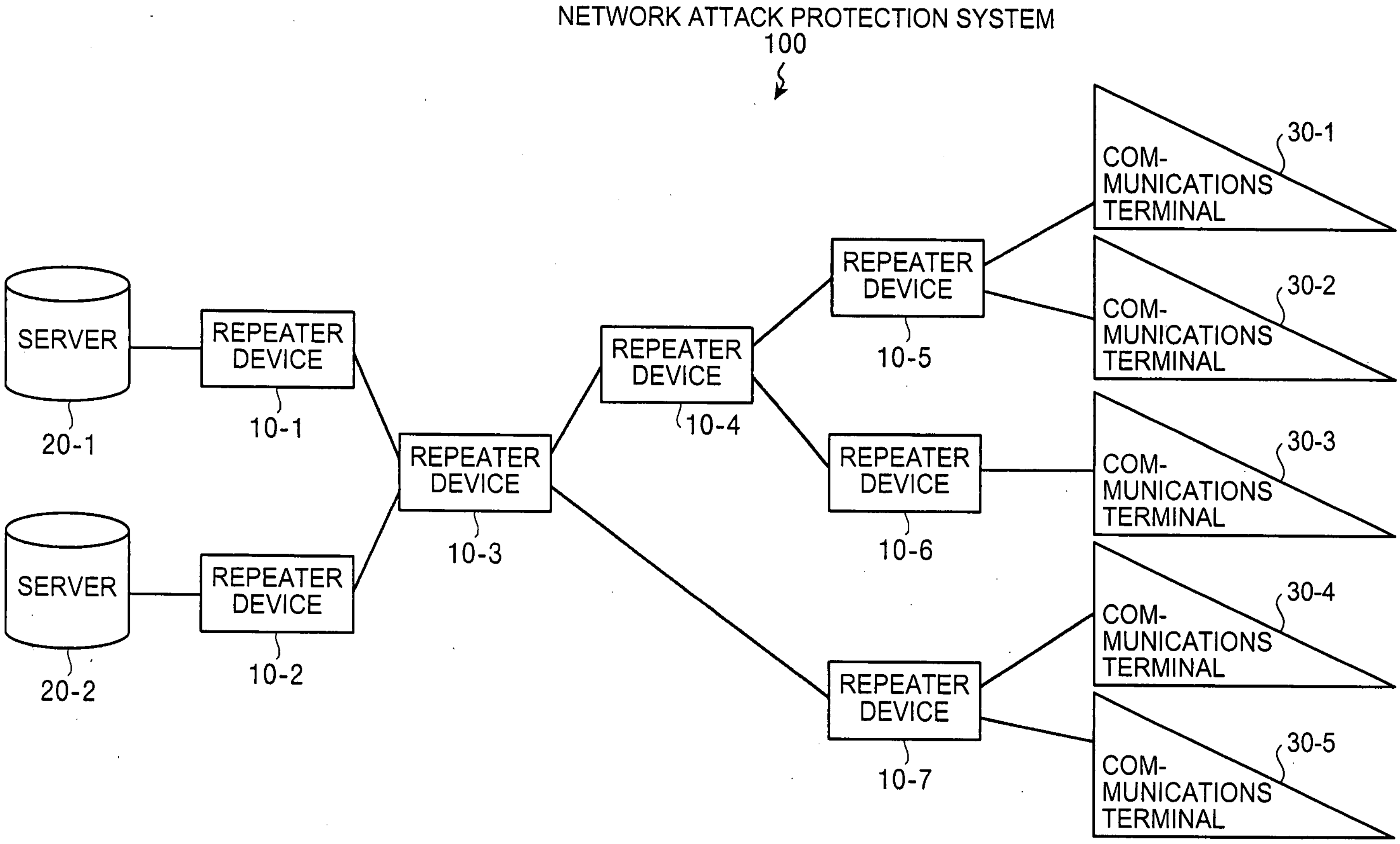

NETWORK ATTACK PROTECTION SYSTEM
100
SERVER
20-1
SERVER
20-2
REPEATER DEVICE
10-1
REPEATER DEVICE
10-2
REPEATER DEVICE
10-3
REPEATER DEVICE
10-4
REPEATER DEVICE
10-5
REPEATER DEVICE
10-6
REPEATER DEVICE
10-7
COM-MUNICATIONS TERMINAL
30-1
COM-MUNICATIONS TERMINAL
30-2
COM-MUNICATIONS TERMINAL
30-3
COM-MUNICATIONS TERMINAL
30-4
COM-MUNICATIONS TERMINAL
30-5

FIG.2

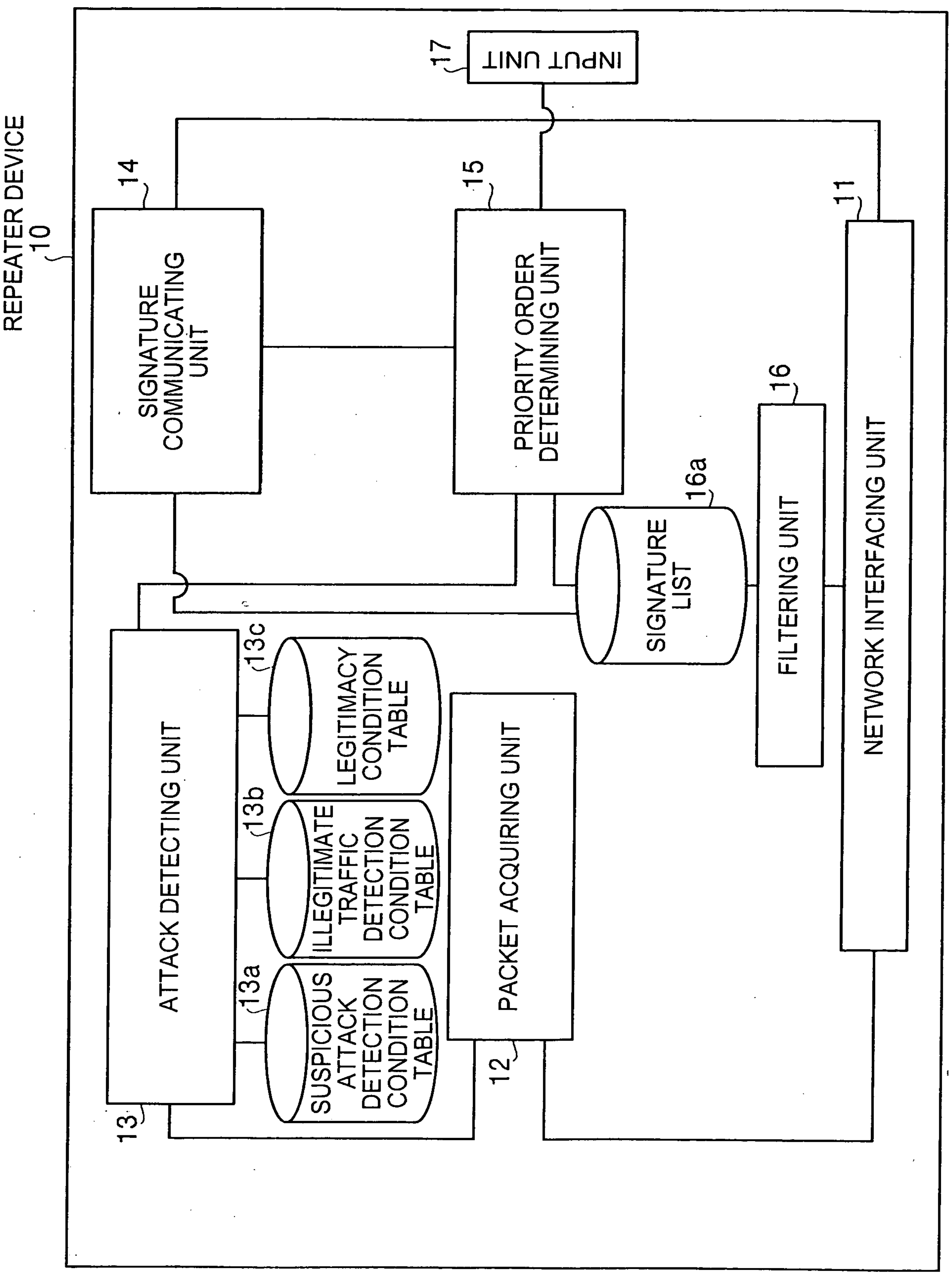

REPEATER DEVICE
10
SIGNATURE COMMUNICATING UNIT
14
PRIORITY ORDER DETERMINING UNIT
15
INPUT UNIT
17
NETWORK INTERFACING UNIT
11
FILTERING UNIT
16
SIGNATURE LIST
16a
ATTACK DETECTING UNIT
13
LEGITIMACY CONDITION TABLE
13c
ILLEGITIMATE TRAFFIC DETECTION CONDITION TABLE
13b
SUSPICIOUS ATTACK DETECTION CONDITION TABLE
13a
PACKET ACQUIRING UNIT
12

FIG.3

SUSPICIOUS ATTACK DETECTION CONDITION TABLE

13a

NO.	DETECTION ATTRIBUTES	DETECTION THRESHOLD	DETECTION TIME
1	{Dst=192.168.1.1/32,Protocol=TCP,Port=80}	500 Kbps	10 SECONDS
2	{Dst=192.168.1.2/32,Protocol=UDP}	300 Kbps	10 SECONDS
3	{Dst=192.168.1.1/24}	1000 Kbps	20 SECONDS
⋮			

FIG.4

ILLEGITIMATE TRAFFIC DETECTION CONDITION TABLE

13b

NO.	ILLEGITIMATE TRAFFIC CONDITIONS
1	PACKETS AT OR MORE ARE CONTINUOUSLY TRANSMITTED FOR S1 SECONDS OR MORE
2	ICMP/Echo Reply PACKETS AT T2 Kbps OR MORE ARE CONTINUOUSLY TRANSMITTED FOR S2 SECONDS OR MORE
3	FRAGMENT PACKETS AT T3 Kbps OR MORE ARE CONTINUOUSLY TRANSMITTED FOR S3 SECONDS OR MORE
⋮	

FIG.5

LEGITIMACY CONDITION TABLE

13c

NO.	DETECTION ATTRIBUTES
1	{Src=172.16.10.0/24}
2	{TOS=0x01}
⋮	

FIG.6

SIGNATURE LIST
16a

SIGNATURE TYPE	PRIORITY	PRIORITY ORDER	SIGNATURE
SET SIGNATURE ·ILLEGITIMATE SIGNATURE ·LEGITIMATE SIGNATURE ·SUSPECT SIGNATURE	HIGHEST PRIORITY	1	SIGNATURE A
		2	SIGNATURE B
		:	
		X-1	
ILLEGITIMATE SIGNATURE	HIGH	X	SIGNATURE C
		X+1	
		:	
		Y-1	
LEGITIMATE SIGNATURE	MEDIUM	Y	SIGNATURE D
		Y+1	
		:	
		Z-1	
SUSPICIOUS SIGNATURE	LOW	Z	SIGNATURE E
		Z+1	SIGNATURE F
		:	

FIG.7

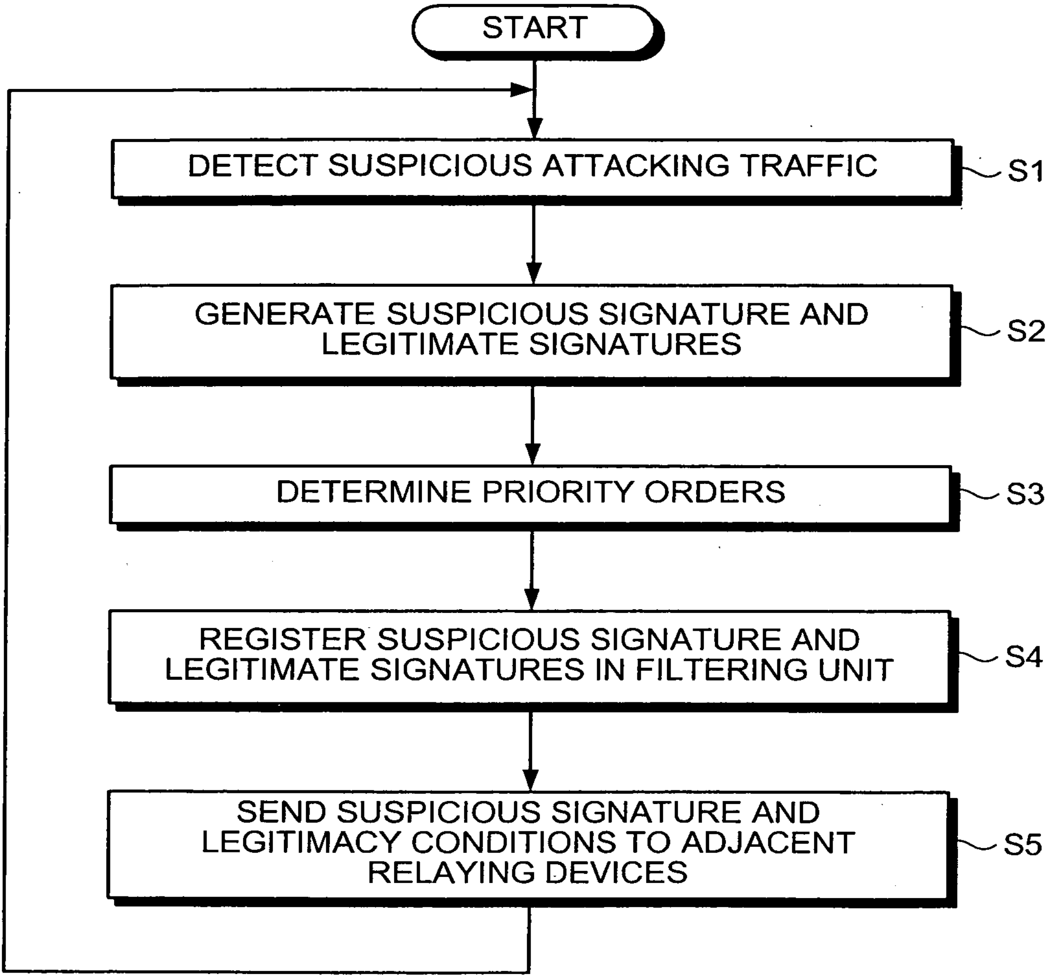

START
DETECT SUSPICIOUS ATTACKING TRAFFIC
S1
GENERATE SUSPICIOUS SIGNATURE AND LEGITIMATE SIGNATURES
S2
DETERMINE PRIORITY ORDERS
S3
REGISTER SUSPICIOUS SIGNATURE AND LEGITIMATE SIGNATURES IN FILTERING UNIT
S4
SEND SUSPICIOUS SIGNATURE AND LEGITIMACY CONDITIONS TO ADJACENT RELAYING DEVICES
S5

FIG.8

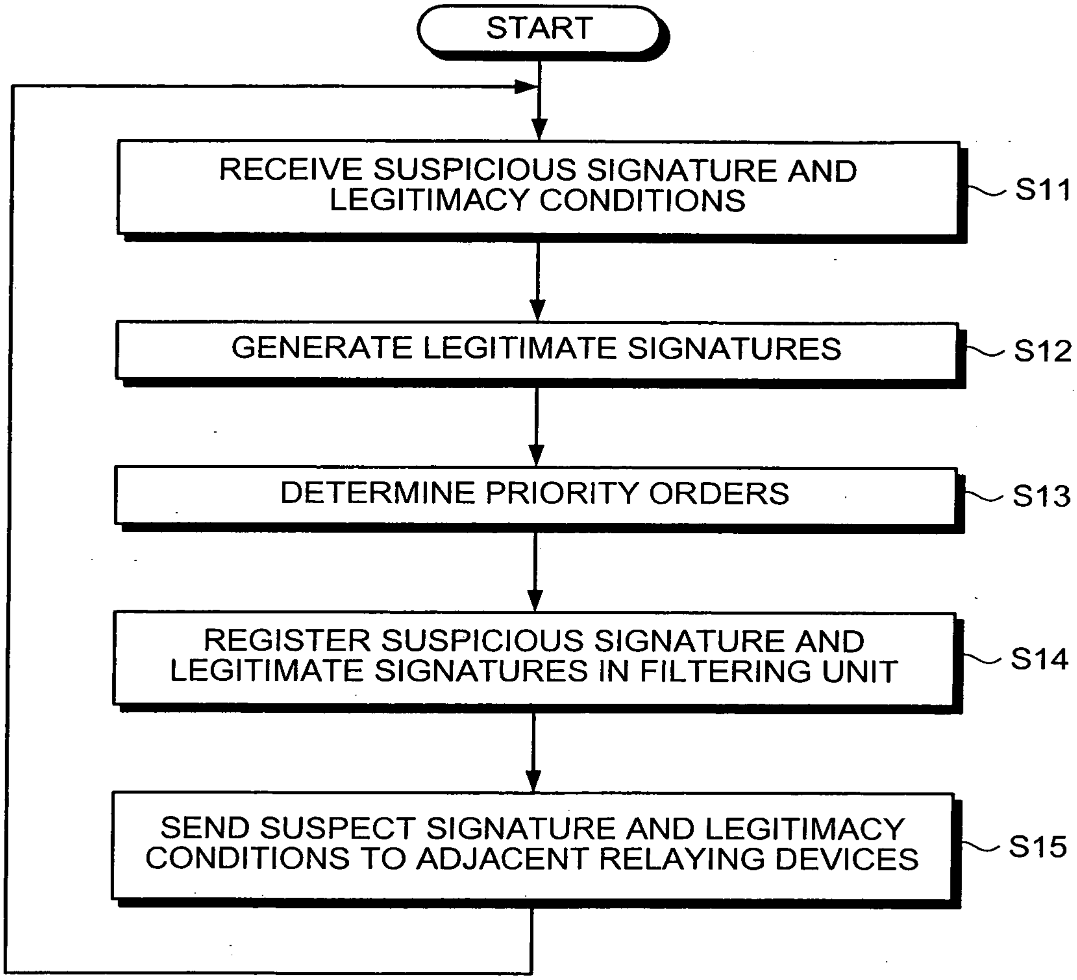
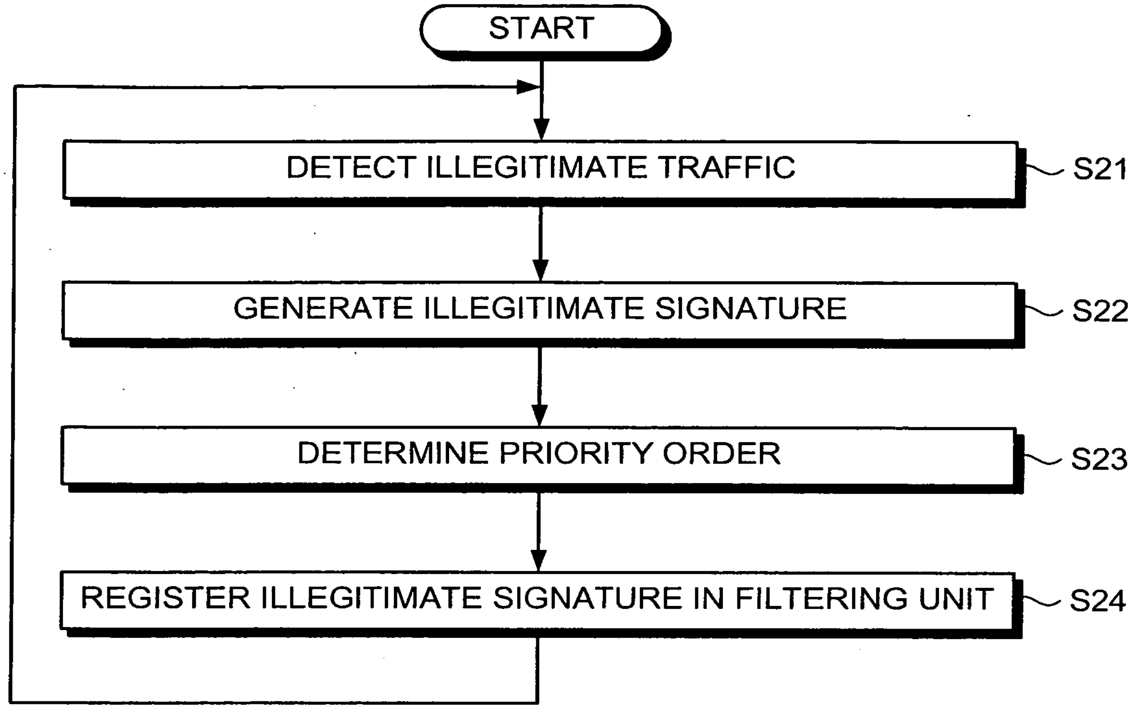

START
RECEIVE SUSPICIOUS SIGNATURE AND LEGITIMACY CONDITIONS
S11
GENERATE LEGITIMATE SIGNATURES
S12
DETERMINE PRIORITY ORDERS
S13
REGISTER SUSPICIOUS SIGNATURE AND LEGITIMATE SIGNATURES IN FILTERING UNIT
S14
SEND SUSPECT SIGNATURE AND LEGITIMACY CONDITIONS TO ADJACENT RELAYING DEVICES
S15

FIG.9


START
DETECT ILLEGITIMATE TRAFFIC
S21
GENERATE ILLEGITIMATE SIGNATURE
S22
DETERMINE PRIORITY ORDER
S23
REGISTER ILLEGITIMATE SIGNATURE IN FILTERING UNIT
S24